

# PHILADELPHIA MEDICAL TIMES.

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## ORIGINAL COMMUNICATIONS.

### A CASE OF PHTHISIS, WITH A VOMICA COMMUNICATING WITH A GASEOUS TUMOR ON THE ANTERIOR ASPECT OF THE CHEST, ETC.

BY J. A. LIPPINCOTT, M.D.,

Late Resident Physician in the Pennsylvania Hospital.

R. C. D., æt. 57, a native of Pennsylvania, and a lumberman by occupation, came under my care May 22, 1876, when the following note in reference to the history of the case was made. The patient, who comes of a healthy family, always enjoyed the best of health until six years ago, when he went through an attack of typhoid fever, which left him with a cough, from which he has never recovered. His illness, however, has not prevented him from working at times in warm weather. Last fall the cough became more severe, and the other symptoms—emaciation, debility, etc.—increased so markedly that he was compelled to take to his bed, where he has remained up to the present time. In August, 1875, the right shoulder began to be painful, stiff, and swollen. The elbow, wrist, and finger-joints were then successively affected. Last February a swelling appeared at the upper part of the right chest, which has been the source of a good deal of pain. This swelling has been steadily enlarging.

I found the patient quite prostrate. He had coated tongue, fetid breath, and anorexia. He was much emaciated, and the capillary circulation was quite sluggish, as was evidenced by the cyanotic hue of the whole surface. He had a troublesome cough, accompanied by abundant, greenish, sometimes blood-stained, muco-purulent expectoration. The heart-sounds were feeble, but otherwise normal. There were no febrile symptoms, and the urine, with the exception of an excess of urates, contained nothing abnormal. The right shoulder-joint was stiff, and the slightest movement of it caused much pain. The deltoid muscle was flattened so much as to suggest a suspicion of subluxation, but examination showed that the head of the humerus was in its socket, and that the flattening of the muscle was due to atrophy from disuse. A marked degree of false ankylosis was found. The elbow was stiff but movable. The wrist and finger-joints—indeed, the whole hand—were very much swollen, and motion was possible in them only to a slight extent.

On inspecting the chest, a uniform swelling was seen on the right side, circular in outline, about five and one-half inches in diameter, projecting about two inches at its centre, and

extending from the lower border of the clavicle downwards, and from the right margin of the sternum outwards. It was more decidedly bluish in color than the surrounding parts, tense though elastic to the touch, and tympanitic on percussion. Satisfactory physical exploration of the chest in the region covered by the tumor was impossible, on account of the tenderness of the parts and the debilitated condition of the patient; and for the same reason the chest immediately above the tumor could not be thoroughly examined; but the loud gurgling, cavernous breathing, and tympany elicited over an extended area on very light percussion, demonstrated the existence of a cavity of considerable size and superficial in location. Some impaired percussion-resonance, with harsh respiration, prolonged expiration, and a few moist râles, indicated that the upper part of the left lung was also invaded.

Quinine, cream punch, porter, nourishing diet, and a mixture containing dilute muriatic acid and pepsin, were ordered, with an occasional opiate to relieve excessive pain and coughing; and a week later, as the man's condition was considerably improved and as the pain in the tumor seemed to be undiminished, I applied the aspirator and removed the contents, which consisted of inodorous air. After getting rid of the "inflation" and coming down to a "hard" basis, it was seen that the pectoral muscles were atrophied—presumably from the pressure exerted by the contents of the tumor—to such an extent that there now seemed no covering over the ribs other than a cutaneous one. The patient expressed himself as much relieved, and it was possible to make a more careful examination of the chest, which resulted in the conclusion that the vomica extended at least from just below the clavicle to the upper margin of the third rib. After the operation light pressure was applied, but this did not prevent a small degree of extravasation of air into the subcutaneous areolar tissue; this, however, was soon absorbed. Two days after the tapping, slight tumefaction reappeared during a violent fit of coughing, and it has remained since that time, but the swelling has never attained to its original dimensions. At times the communicating fistula seems comparatively pervious, and then the patient can, by pressure, return the contents of the tumor into the pulmonary vomica. I have been able to do this by pressing with the side of my head, and in this manner I have found it possible, by hearing the gurgling noise of the returning air, to fix—approximately at least—the location of the fistula, which is probably at the upper edge of the second rib, about one inch and a half from the margin of the sternum.

The subsequent history of the case is briefly as follows. When the patient had developed sufficient strength and courage, manipulation

and friction of the ankylosed joints were instituted and continued, with the result of dissipating the swelling in the wrist and hand and restoring a considerable and most useful degree of motion in all the joints affected. The inflammatory action invaded the left wrist, but subsided quickly after, and possibly on account of, the exhibition of salicylic acid in small quantities dissolved in Huxham's tincture. About the middle of June the patient was able to go out, and also to retain and digest cod-liver oil, and from that time the cough and expectoration have appreciably diminished, and the patient has gained in strength and flesh.

*Remarks.*—The chief point of interest in this case is of course the tumor. Almost all writers speak of the frequency with which pleural adhesions are found when the destruction of lung-tissue is at all extensive, these adhesions being the means by which ulcerations into the pleural cavity, together with the consequent pneumopythorax, are prevented; but there are comparatively few cases on record in which ulceration beginning in the lung has extended through the thoracic walls; and no author to whose writings I have had access alludes to the possibility of such ulceration resulting in the formation of a circumscribed swelling containing air. Dr. James H. Hutchinson, one of the physicians to the Pennsylvania Hospital, in an article on "The Local Treatment of Pulmonary Cavities by Injections through the Chest-Walls" (*Philadelphia Medical Times* of May 30, 1874), refers to a case—alluded to by "Discipulus," in a series of papers published in Nos. 60, 171, and 180 of the *British Medical Times*—in which a cure is said to have followed the spontaneous evacuation of the contents of a vomica through the walls of the chest. In the same article Dr. Hutchinson quotes a case, reported by M. Bricheteau, in which, as a consequence of the application of the actual cautery to the chest, a pulmonary cavity was opened and emptied of its contents.\* In the *New York Medical Journal* for January, 1876, appears a brief account of a case of a perforation in the chest-wall in connection with a phthisical cavity. The point of perforation was beneath the clavicle, about two inches from the sternum, and from it, on forcible expiration, air and fluid issued. Before the February number of the *Journal* came out, the pa-

tient had died, and at the autopsy a cavity the size of a hen's egg was found, which opened between the first and second ribs. The pleura was adherent around the perforation, but in no other place. Dr. Morris Longstreth has called my attention to a case of "Lungenabscess mit allgemeinem Hautemphysem," reported by Dr. H. Senator in *Virchow's Archiv* for 1872, vol. liv. p. 278:

During the siege of Metz, a Hessian soldier was admitted into hospital for dysentery on the 8th of September. On the 10th, some percussion-dulness was noticed below the inferior angle of the left scapula. The lung-changes went on to softening, which, however, was not detected during life. On the morning of the 17th both sides of the face and neck, the greater part of the trunk in front and behind, and the left arm, were found to be emphysematous. By the 19th, the date of the patient's death, the emphysema had extended over the right arm and down to the thighs. At the necropsy an abscess, the size of a fist, and surrounded by very firm adhesions, was found at the posterior portion of the lower lobe of the left lung, which communicated with the subcutaneous tissue by at least one small opening situated in the ninth or tenth costal interspace, about two inches from the spinal column.

In this case the ulcerative action, which was acute, rapidly made its way through the deep structures to the subcutaneous space occupied by the loose areolar tissue, whereas, in the others alluded to, the inflammatory process was in all probability sufficiently chronic to permit of the gluing together of the superficial tissues, thus effectually preventing the occurrence of corporeal emphysema. The peculiarity of the case now for the first time reported lies in the fact that the destructive process was so chronic as to allow of the gradual distention, with air, of tissues at least as deep as the fascia lining the greater pectoral muscle.

On first looking at the tumor, and seeing also the swollen joints, the thought flashed across my mind that it was a metastatic abscess. This idea rapidly gave way to the suspicion of its being a collection of pus communicating with the lung-cavity. A single tap, however, eliciting a distinctly tympanitic sound, revealed the true character of the swelling. That the collection was beneath the deep structures, and not in the subcutaneous areolar tissue, was established by the absence of crepitation, and by the fact that the tumor was circum-

\* Valleix, *Guide du Médecin Praticien*, p. 800.

scribed, being limited at the sternal margin by the origin of the pectoralis major. In fact, before the aspirator was used the pain was most intense along the margin of the sternum, and was doubtless due to the forcible stretching of tendinous fibres of the muscle at its place of origin. The fact that pus did not escape from the vomica into the swelling is to be accounted for by the probable hypothesis that the opening was small and slit-like; and further examination showed pretty conclusively that it was not at the lower part, but well up on the anterior wall of the cavity, and that there was a free outlet for the secretions through the bronchial tubes. In view of the following facts,—that the tumor was directly over the vomica (which was extensive); that it was reproduced, after tapping, by violent coughing; that it could be made to disappear by pressure; and, finally, that on applying the ear to the chest in a certain region, and simultaneously making pressure, the peculiar sound of the air passing into the vomica could be distinctly heard,—it was clear that the pulmonary cavity communicated with the extra-thoracic collection of air through an opening in an intercostal space, and constituted, indeed, its *fons et origo*. I may add that Professor Da Costa, who saw the case, lent the weight of his opinion in favor of this conclusion.

As to the local treatment, aspiration was of course indicated as a means of securing temporary relief; but was no radical treatment to be attempted? Should I have injected tincture of iodine, or some other irritating fluid, with a view to setting up adhesive inflammation? I thought not, because, in the first place, some of the fluid might find its way into the vomica and interfere with the favorable progress of the case; and in the second, considering the general debility and the inactivity of the circulation, I feared that suppurative inflammation might be induced which might lead to a communication between the vomica and the external air through the thoracic wall, an event for which I did not feel prepared. There remained what, to my mind, was the safest plan of treatment, namely, by elastic pressure; but the patient preferred to delay the application of the necessary apparatus, and it was not made use of systematically. The tumor, however, has not given him much trouble; if it does, I shall resort to pressure (pre-

ceded, if necessary, by aspiration), by means of raw cotton or soft sponge confined with adhesive strips.

In regard to the administration of salicylic acid, although I have not heard of its being given in cases of pyæmic arthritis, I claim no originality on that score, since the drug has been prescribed of late in so many and so diverse affections, for reasons philosophical and unphilosophical, that it would be strange indeed if it had not long ago been used as a remedy in this form of joint-inflammation.

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Since the above was written, the swelling has opened spontaneously. The patient, whom I had not seen for about ten days, sent for me yesterday, and, when I arrived, informed me that for several days he had had a good deal of pain in the tumor, and that "it was hot enough to cook an egg,"—a new feature. He also stated that about two hours before my arrival an opening had formed, from which there came a medium-sized cupful of yellowish matter. This had, unfortunately, been thrown out, so that I had not an opportunity to examine it; but his wife said that some of it was stringy and tenacious. I expressed a small quantity of pus mingled with bubbles of air, and found the former not markedly unhealthy. The opening was over the sternum, near its right edge, on a line with the second intercostal space, some two and a half inches from the point where the aspirating needle had been inserted, which was at the most dependent portion of the swelling. The man was much relieved by the escape of the contents of the tumor, but said that he felt faint and slightly nauseated.

What had taken place? Clearly, the intercostal opening, which, for some inexplicable reason, had previously remained small in size, with comparative suddenness—probably during the past week—attained sufficient calibre to allow of the passage of the secretions of the vomica. These have produced suppurative inflammation in the hitherto quiescent tumor, which process has resulted in the usual way. We have, therefore, a *vomica in the lung, communicating with the external air through what may now be regarded as an abscess in the thoracic wall*. I shall probably enlarge the external opening and syringe out the abscess, and thus, indirectly, the vomica, with carbolic or salicylic acid solutions,

and I shall expect to find, in the sputa expectorated, considerable quantities of the material injected.

The further progress of this interesting case I shall at some future time beg the privilege of laying before the readers of the *Times*.

3715 LANCASTER AVENUE, Sept. 28, 1876.

## THE VARIATIONS OF THE PULSE, AND THEIR INDICATIONS.

INTRODUCTORY REMARKS BY DR.  
HORACE Y. EVANS.

**MR. PRESIDENT AND GENTLEMEN:** The employment of the sphygmograph, though of very great importance as an auxiliary in studying the pulse, is, however, a refinement not practicable to us as general practitioners.

My remarks this evening, therefore, will apply solely to those variations recognizable by the touch.

The simple definition that the pulse consists not in an enlargement, but in the filling up of the vessel with blood, is as applicable to the abnormal as to the normal pulse.

To define what constitutes the normal pulse of an individual whose habits and peculiarities are familiar to us, is easy and can be done definitely. But the varieties of habit and constitution are so protean that it is only possible to make a general approximation to a normal standard, either as to *frequency, force, or regularity*.

The standard as to frequency generally accepted is about as follows: In early infancy there are about 140 pulsations per minute; in the 2d year they fall to 130; in the 9th year to 90; at 15 years to 82; at 40 years they will be 75; and from the 50th to the 60th year they will average 60 per minute.

We have met with a number of individuals in whom all the extremes of variation existed without apparently disturbing their general health. Yet, if we accept the standard just mentioned, we can assert that, as a rule, any marked deviation above or below it is indicative of disease, and, further, that all constitutional disorders are attended with a pulse either above or below said standard. The heart, being so immediately dependent upon the sympathetic nerve for its stimulus, is the first

organ to take cognizance of any disturbance of that system. In this fact alone we have the key to almost all pulse-variations. To attempt to trace back and explain the origin of the disorder of the nerve-centre is foreign to our subject, and would be a task too extended for the present occasion. My object is simply to call your attention in a general way to some of the varieties of the pulse and their indications.

First, then, as to *rate*. The instances in which the pulse falls far below the normal standard as a result of disease are few, and are generally premonitory of dissolution, as in some cases of apoplexy, in the later stages of relapsing fever, in certain conditions of aneurism, and as the result of poisonous doses of certain drugs. With rare exceptions it is accompanied by loss of consciousness, and indicates a profound nervous lesion. As a slow pulse threatens danger to life, so can it be as truly said of a *continuous and excessively rapid* one.

The earlier this condition appears in a disease, so much the more dangerous are its premonitions. Instead of paralyzed nerve-centres we have excessively irritable ones, and instead of anæsthesia we find hyperæsthesia.

It characterizes alike the sthenic and the asthenic states.

The general result of this excessive acceleration is an elevation of the temperature,—the two essentials of the febrile state,—eventuating in increased metamorphosis with an arrest of elimination of excretæ.

We have, first, morbid blood, then deranged nerve-supply to the heart and blood-vessels; and, consequently, a fast pulse, preternatural heat, and rapid disintegration or tissue-change.

Fortunately, however, for our patients, a rapid pulse, if not *too long continued*, does not necessarily indicate serious danger.

It is the daily experience of most of us to have patients greatly excited over periodic attacks of rapid and violent action of the heart; yet we deem it of no serious significance.

In many cases this condition indicates disorder of some sympathizing organ. We are all familiar with the occasionally rapid pulse of the dyspeptic.

The sympathy existing between the heart and the stomach is more than neighborly.

The normally acting heart requires a



normal nerve-supply from the nerve-centre. The latter organ needs the stimulus of healthy blood, this again to be healthy demands good digestion and assimilation; hence a mutual dependence; and it is exceptional to have a diseased stomach not attended with a rapid pulse.

Again, we meet with instances of rapid pulse occurring at short intervals in healthy persons. The cause seems to exist in a congenital sensitiveness of the sympathetic nerve system. Such cases are liable to attacks of syncope when exposed to depressing influences. Excessive venery and the use of tobacco simulate this condition, and when associated with it generally result in dilatation of the left heart.

Next we have deviations in the *force* or tension.

The fallacies of the pulse are more conspicuous in this respect than in any other; under certain circumstances the pulse may not indicate either the force or the power with which the heart is acting, and as a consequence erroneous inferences may be drawn as to the vital powers.

This discrepancy arises from the varying condition in which the arteries happen to be. If the vessels are relaxed, the tension will be low between the systole and diastole; on the contrary, if the vessels are contracted and small, the tension will be high. The heart may act with the same vigor in both conditions, yet the pulse will vary.

In pulmonary congestions and mitral contractions, the blood flows so scantily into the left heart that the volume expelled is not sufficient to move that already in the arteries; here, again, we have low tension with feebleness.

This want of proportion of force of the impulse of the heart and that of the pulse in the arteries, as a rule, attends diseased conditions of the right side of the heart.

The next variation is in regard to *rhythm*. First, as to *intermissions*. The occasional loss of a pulsation of the heart seems in some cases to be a congenital condition, and not attended with any other symptom of disease.

It varies in import in proportion to the age of the subject.

If in the young, before vices of habit have diseased the constitution, it indicates organic heart-trouble. By far the most fruitful source of this disorder is rheumatism in its varied forms. Among its se-

quelæ we have permanent patency, inadequacy, contraction, oedematous thickening, and calcareous deposits; which, if of the left side of the heart, will inevitably produce irregularities of the pulse.

We have also deranged rhythm in what is called the *dicrotic* pulse. It consists of a second wave of blood or double pulse from the impetus of but one systole of the heart. It occurs after the maximum of arterial tension has been reached and the descent has commenced. The force is not equal to the first, and the subsidence is more rapid. It indicates a vigorous contractile capacity of the arteries, but a want of harmony in the order of their contraction. It attends diseases of the young and of the middle-aged.

The *quick* pulse is another variety. It consists of a quick filling of the artery, and is attended with an onward motion. It indicates irritation with great strength and freedom of heart's action. The arterioles and capillaries are dilated, and the flow of the blood is easy and rapid. The contrary condition, viz., contracted capillaries and arterioles, causes a damming back and comparative stagnancy of the blood in the arteries; in this condition we find the *prolonged* and *hard* pulse. It is characteristic of dilatation and hypertrophy of the heart.

Occasionally we meet with the *jerking* pulse. It consists of a quick and somewhat forcible beat, followed by an abrupt subsidence. The distinction between it and the quick pulse is that in the former the artery seems to collapse after the beat. It indicates not only deficiency but also permanent patency of the aortic valves, which permits a copious regurgitation during the diastolic period.

The pulse is not always *synchronous* with the first sound of the heart. The normally almost imperceptible interval between the systole of the left ventricle and the pulsation in the radial artery occasionally becomes quite distinct. This condition is noticed in diseases characterized by a slow pulse, and indicates a weakened condition of the muscular structure of the heart and arteries; as in fatty degeneration of the heart and typhoid softening, in atheroma of the arteries, dilatation without hypertrophy of the left ventricle, mitral deficiency, loss of contractile capacity of the arteries, and in large aneurism of the aorta.

# TUMOR OF THE LEFT SIDE OF THE PONS: INVOLVEMENT OF THE FEVER OR HEAT CENTRE.

BY B. F. LAUTENBACH, M.D.

**R**OSALIE F., æt. 36, married, was admitted into the observation-room of Professor Meynert, at the Allgemeines Krankenhaus, Vienna, on July 11. The history given by the patient on her admission gave no clue as to the origin of her malady; parents living, and healthy. She denied ever having had venereal disease; in fact, the only disease she acknowledged to have had was typhus fever in her childhood, following which she was subject for several years to attacks of obtuseness of the mind, or, to put it in her own words, there were times at which her powers of thought and memory were very much diminished. Her menses have always been regular, excepting during her pregnancies, of which she has had five: four of the children were carried to full-born, and are still living, while the fifth was aborted in the fifth month. During the last two months she has been subject to severe cephalalgia, accompanied by double sight, and, as a consequence of the latter, vertigo. She rapidly became very weak, the vertigo constantly growing in intensity until her admission, when it prevented her from walking the shortest distance without assistance.

On her admission, the symptoms which she presented were as follows: paralysis of the left abducent nerve, as shown by a strabismus convergens of that eye and the presence of double pictures; a paresis of the whole of the right facial nerve, with hyperæsthesia on percussing the skull in the left frontal region, and anæsthesia of the frontal branches of the trifacial. There was also a slight interference with her speech, which the patient stated had but recently manifested itself. The loss of appetite and vomiting continued, notwithstanding all the means which were employed to relieve the patient of these distressing symptoms.

July 13.—The patient has lost all knowledge of her surroundings, passes feces and urine into the bed, and is very restless. She has had several slight attacks of convulsions, involving the upper extremities, more especially the right. She moves her right arm and leg much less frequently and with less energy than the left. The respiration and pulse are regular, the latter numbering 76 per minute. The temperature on the evening of the 12th was 39°.4; on the morning of the 13th, 40°; in the evening, 40°.2.

July 14.—In the morning very marked cyanosis; pulse and respiration irregular, but not increased in frequency; slight spasmodic twitchings in the upper extremities. Morning temperature, 40°.04. Death at 8 P.M.

Autopsy, twelve hours after death. The meninges over the left half of the pons were

agglutinated and very much thickened, the corresponding portion of the calvarium slightly roughened, while on the corresponding side of the pons the normal brain-substance was found to be substituted by a grayish-red mass, which on microscopic examination presented the characteristics of a gumma. The lower third of the pons was comparatively normal; still, the encroachments of the tumor here were plainly visible; the medulla oblongata, however, had not in the slightest been involved. The arteries of the pons were diseased, and contained liquid blood.

The hypophysis cerebri was enlarged, and in its interior was found an abscess about the size of a pea; the walls of the cella turcica roughened.

Neither in the thoracic nor in the abdominal viscera were there any further evidences of disease found.

*Remarks.*—The above case presented the typical symptoms of a tumor of the pons, and as such it had been diagnosed when admitted into the observation-room. Its great interest lies not in the nature nor in the ordinary symptoms of the disease, but in the sudden rise of temperature which commenced the second day after her admission (the third before her death) and continued until her death. On admission her temperature was found to be normal (37°.2 C.); the following evening it had risen to 39°.4 C. (102°.46 F.); the next morning, 40° C. (104° F.); in the evening, 40°.2 C. (104°.18 F.); the following morning it was 40°.4 C. (104°.36 F.). This was the last record taken, as in the evening the patient was already moribund.

This steady rise in the temperature, without a corresponding effect on the circulation, can only be explained on the theory of a heat-centre in the pons, the presence of which has been rendered very probable, if not absolutely certain, by the experiments of Heidenhain, Tscheschichin, H. C. Wood, and others. This rise cannot be explained on the theory that the vasomotor centre was involved, for, though the temperature steadily rose, the circulation remained uninfluenced until several hours before death, when it became irregular,—an involvement of this centre without influence on the circulation being an impossibility.

As the lesion in the above case was limited to but one side of the pons, an interesting point should have been determined, which, unfortunately, did not occur to me at the time,—namely, whether one side of the body was warmer than the other, and

whether the extremities were warmer than the body of the same side, or vice versa, it having been shown many years ago, by Schiff and others, that when a half-section of the lower portion of the pons is made, the temperature of the extremities, from the knee to the foot, on the side opposite to the side of section, is much higher than the temperature of the same parts on the side corresponding to the side on which the section was made, while as to the rest of the body the opposite holds true, showing that some of the fibres concerned in the heat-producing function decussate below the pons, while the majority either decussate higher up, or not at all, which latter is not probable.

My thanks are due to Professor Meynert and Dr. Schlangenhäusen for their kindness in affording me opportunity to observe, and for permission to make use of, the above case, as well as for many other evidences of friendship.

#### HYDROBROMIC ACID.

BY ALLAN McLANE HAMILTON, M.D.,

Visiting Physician to Epileptic and Paralytic Hospital, New York.

DR. WADE,\* and Dr. Milner Fothergill,† of London, have already presented their views in regard to the value of this new remedy, and, after a series of physiological and clinical observations, I am prepared not only to endorse all that they have said, but also to direct attention to other conditions than those already mentioned, in which its therapeutic excellence is fully proved.

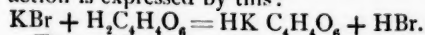
Dr. Wade, who originally brought hydrobromic acid before the profession, prepared it after the formula below:

Tartaric acid, 3xiii, 3i, gr. xxxvii;

Bromide of potassium, 3x, 3vi, gr. xxviii;

Water, Oiv.

The tartaric acid unites with the base of the potassic bromide, forming the acid potassic tartrate, while the other constituent, joining to itself hydrogen, remains in solution as hydrobromic acid. The action is expressed by this:



The acid tartrate is almost insoluble, and is precipitated, while another tartrate, expressed by the symbols  $K_2C_4H_4O_6$ , is partially soluble.

The solution should be decanted.

This is the preparation I have used so far, though Miller† gives a formula for making the acid, in which bromide of potassium is treated by phosphoric acid.

In appearance, it is a straw-colored liquid, with an agreeable acid taste, and a slight odor of bromine. It combines very readily with many substances, and may be given with tinct. ferri chlor., strychnine, etc. It prevents the headache caused by the iron, when given to persons who are anæmic (Fothergill). It dissolves a large amount of quinine; and Gubler found that the head-effects of that drug were not produced when this combination was employed.

In small doses it acts very much as the bromides do, but with much more intensity. Half a drachm is fully equal to one drachm of the bromide of potassium. It differs, however, in the want of permanence of its effects, the base of the bromic salts seeming to favor retention. In epilepsy it is not serviceable. I have used it in three cases. One case, in which the attacks were monthly, and bromide was administered, was aggravated by HBr. The attacks increased in violence and frequency. Large doses did no good; and it was only in one case that it accomplished anything.

In hysteria, Fothergill found it to be a valuable remedy.

Its indication, I think, is in that form of cerebral hyperæmia which is of sudden origin and dependent upon a disturbed heart-action and general debility. In the nervous condition following the abuse of tea, coffee, or tobacco, alcoholism, insomnia due to congestion, and a number of varieties of disturbed cranial circulation, it is the best remedy I know of.

My own experience in its use has been limited; but from the inspection of the following cases which are briefly sketched, its value will be appreciated.

*Case I.*—Miss C., aged 24, school-teacher in a large public school-room, many hours. The air is very impure, and towards the end of the day her headache begins. "Her head seems too big for her body," face flushed, eyes red, respiration troubled. (This was the condition before the summer holidays.) A vacation did very little good. She now complains of the same symptoms. Towards night, her temporal vessels throb, she has "rushes of blood." There has been some dysmenorrhœa. On August 28, she consulted me, when I prescribed hydrobromic acid 3i t. i. d. Sept. 14,

\* Peninsular Journal of Medicine, Feb. 1875.  
† British Medical Journal, July 8, 1876.

† Miller, Inorganic Chemistry, p. 132.

entirely relieved. A menstrual period was afterwards passed without pain.

*Case II.*—G. J., 31, clerk. At his desk many hours daily. Complaints of confusion of ideas, inability to fix his mind upon his work, indisposed to exertion, smokes to excess, insomnia, and incapacity for work. The top of his head is hot, and the conjunctivæ injected. HBr. 3i t. i. d. Complete relief in a week. This condition had lasted several months.

*Case III.*—Mr. D., 36, "man about town." His habits are bad; drinks hard, and keeps very late hours. Is being treated for syphilitic trouble. Has had head-fulness, insomnia, indisposition to take exercise, gradual loss of memory for the past ten years. He formerly masturbated. Very hysterical and worried about himself. There are many dysæsthesiæ, but also evidences of head-trouble. The eyes are red, prominent, and watery, and the temporal vessels stand out like cords. At night his sleep is troubled, and it is some time before he can forget himself. His urine contains phosphatic deposits. HBr. 3i t. i. d., before eating. Two months after (Sept. 15), perfectly well, except syphilis.

*Case IV.*—Miss M. E. R., 22. Insomnia is the condition which annoys this patient the most, and when in bed her feet become cold. "It seems," she said, "as if all the thoughts I ever had were crowded into the long weary hours I pass before sleep comes." She fears insanity, and is in a pitiable mental state. The bromides have lost their effect. A drachm and a half of hydrobromic acid procured sleep the first night.

It may be given just as the bromides are, and the observers I have mentioned have used it to allay bronchial irritation, to stop the vomiting of pregnancy, and for other morbid states accompanied by reflex excitement.

Its advantages are its reliability, its ready decomposition in the stomach, and its agreeable form.

I have prescribed it with essence of lemon and sugar, in which form it makes a pleasant drink. It should always be well diluted with water.

123 EAST 30TH STREET, NEW YORK.

## TRANSLATIONS.

A CASE OF PRIMARY INFECTIOUS INFLAMMATION OF BONE (Senator: *Berlin. Klin. Wochenschrift*, No. 7, 1876).—The patient was a girl, aged 15 years, and during life it was supposed that she was suffering with typhoid fever. At the post-mortem examination, the lower half of the tibia was found bathed in yellowish-red pus, the

same portion of the bone was bared of its periosteum, its lower epiphyseal extremity lessened, and its marrow infiltrated with pus below, and above reddened and permeated with circumscribed purulent deposits.

W. A.

A NEW ENDOSCOPE (J. A. Steurer: *Centralblatt für Chirurgie*, No. 30, 1876).

—Steurer thinks that most endoscopic tubes, owing to their length, give but an indistinct image of the parts being examined, and one that is but imperfectly illuminated. He therefore uses a tube that is but 13½ ctm. in length, and, by compressing the pendulous portion of the penis in its long axis, shortens the length of the urethral canal 5 to 6 ctm. This instrument, he claims, can be quite readily introduced into the bladder, and a thorough and satisfactory examination made of the posterior portions of the urethra. W. A.

THE TREATMENT OF SYNOVITIS HYPERPLASTICA GRANULOSA BY INJECTIONS OF CARBOLIC ACID (J. Schmidt: *Centralblatt für Chirurgie*, No. 35, 1876).—In Strasburg and Bonn parenchymatous injections of carbolie acid in the so-called fungous inflammation of joints have been already tried, with but unsatisfactory results. Schmidt criticises the work of Knöry, and thinks that the improvement as to pain and swelling which he claims for this mode of treatment is not due to it. At least, the cases became worse at a later period, so that some of them were no better than before the beginning of the treatment, and others actually worse. The reason of this, he thinks, lies in the fact that all of these cases but two were not fit subjects for the operation, on account of existing suppuration. Moreover, the injections were omitted for two weeks, and this had an unfavorable influence on the result. The cases which were thus treated in Bonn were also not the most suitable that could have been chosen. In the clinic at Greifswald injections of this kind were made in many cases, and in all of them where the conditions were suitable—that is, where there was no exudative inflammation of the joint—they were of benefit. In confirmation of his views, Schmidt gives the results of the treatment in the following six cases from those treated at Greifswald:

1. Coxitis: no pain after three months; patient discharged, after five months, much improved.

2 and 3. Gonitis: after two and a half



and six months' treatment, respectively, complete recovery.

4. Coxitis: improvement after twenty injections.

5. Gonitis: recovery after three months.

6. Coxitis: recovery after three months.

W. A.

CURE OF ANEURISM OF THE ANTERIOR TIBIAL ARTERY BY THE INJECTION OF CHLORIDE OF IRON (Denucé: *Bulletin de la Société de Chirurgie; Centralblatt für Chirurgie*, No. 30, 1876).—This tumor was about the size of a walnut, was situated in the line of the anterior tibial artery, in front of the ankle-joint, and had resulted from a violent strain, to which the parts had been subjected three years previously. The patient was unwilling to have the vessel ligated, and both digital and instrumental compression had been tried, with but a slight degree of success, before the treatment by injection was resorted to. The operation was performed with a hypodermic syringe, and five drops of a solution of the perchloride of iron injected into the tumor. The artery was compressed above and below the tumor for ten minutes, at the expiration of which time all pulsation had ceased. A compressing bandage was applied and kept on for some days, when the cure was found to be perfect. Immediately upon the introduction of the fluid, cramps came on in all the toes, and there was marked redness of the anterior part of the flesh. Both of these, however, vanished very quickly. There was some weakness of the leg for some time, and a sluggish injection of the great toe, which resulted in the loss of the nail of that member. D. advises this mode of treatment only in such cases as this, in which the artery can be compressed with certainty upon both sides of the tumor, and he also advises compression by means of a bandage for some time, to insure the formation of a clot. The strength of the solution used in this case was but 15 per cent. Givaldis thinks it better to use one having a strength of 25 to 30 per cent., as a tougher and more solid clot is formed, and the danger of embolism is less.

W. A.

REMOVAL OF NUMEROUS FREE BODIES FROM THE METACARPO-PHALANGEAL ARTICULATION OF THE MIDDLE FINGER (Boeckel: *Gaz. des Hôpitaux*, No. 20, 1876).—The patient was a man 54 years old, who five months previously had received a violent

contusion of the back of the hand. A short time after this there was considerable swelling about the articulation named above, and the tumor was thought to be due either to arthritis deformans or a neoplasm, with a tendency to ossification. Under spray, an incision was made through the length of the tumor, and it was found to be due to a dilatation of the cavity of the joint. In it were found some free bodies, composed of hyaline cartilage, and five others, which were partially ossified and attached to portions of the joint. They were all removed and Lister's dressing applied. The wound did well, cicatrization went on rapidly, and there was complete restoration of the movements of the joint.

W. A.

ON THE ASSERTED IMMUNITY FROM DANGER IN ASPIRATION (E. Pingaud: *Gaz. Hebdom.*, No. 42, 1875).—Pingaud has, in two cases, found that in the introduction of the needle of the aspirator rupture of vessels, with dangerous hemorrhage, resulted. The first was a case in which the injury was a compound fracture of the skull from a railroad accident. Trephining was twice performed, in the hope of producing an existing depression, but without success. Ten days later, symptoms of intercranial suppuration came on, and Pingaud introduced the needle of Dieulafoy through the dura mater and into the brain, and drew off some brownish pus. The canula was not immediately removed, and a sudden hemorrhage occurred, which was followed by grave symptoms, indicative of serious compression. In order to diminish this pressure, a bistoury was plunged into the cavity of the abscess; pus came out freely, and the symptoms of compression were at once relieved. Death occurred the next morning, and at the examination the cavity was found full of freshly-clotted blood, and the walls of the lateral ventricle were ruptured, and all the ventricular cavities were filled with the same fluid. In the second case the abscess was due to caries of the vertebrae. The canula was introduced, and but little pus, colored by a few drops of blood, drawn off. The tube was at once removed, but the cavity of the abscess was quickly filled with blood, and, upon palpation, fluctuation was quite distinct. This was absorbed in due time, and the case did well. Pingaud remarks that in certain conditions of the vascular system rupture of vessels by diminution of the external pressure is unavoidable. W. A.

## MEDICAL TIMES.

PHILADELPHIA, OCTOBER 28, 1876.

## EDITORIAL.

THE HEALTH OF PHILADELPHIA  
DURING THE EXHIBITION.

THE extraordinary efforts which have been made by certain newspapers, of wide circulation though probably of but little influence, to injure the Centennial Exhibition by statements in regard to the health of Philadelphia, are humiliating to believers in the freedom of the press. The truth is, that the city has been this summer extraordinarily healthy, and that the water-supply and the general hygienic arrangements have stood the very severe test so well as to reflect credit upon the city authorities, and to demonstrate the great value of the homestead method of living practised in this city. The minimum death-rate is evidently to be obtained not by means of "people's palaces," or gorgeous "flats," but by small, separate dwellings, in which the independence and self-respect of the working-class are maintained by the home feeling. It must be remembered that as many people visited the Centennial in the first five months after its opening as were at the Vienna Exposition during its whole existence. Much of the time Philadelphia has had, at least, one-third more than its usual number of inhabitants; yet its death-rate will compare favorably with that of almost any other city in the world. The summer of 1875 was cool and pleasant. In Paris, during the corresponding period of last year, the death-rate was 25.16 per thousand; in London, 23.48 per thousand. Notwithstanding the intensity of this summer's heat in Philadelphia, the death-rate has been 23.48 per thousand. Comparing this with the rate of the large Northern cities of the United States, we find that in all

of them the mortality has been greater, and that in New York it has risen to 30.43 per thousand.

Forced to meet these facts, one of the New York dailies asserts that, although there are fewer deaths in this city, there is vastly more sickness than in the great metropolis. As is well put by one of our city newspapers, the lesser number of deaths in the greater number of cases proves how much better the Philadelphia doctors are than those of New York. Although we feel this superiority, truth requires us to acknowledge that our New York friends have magnified the number of our cases. The newspaper accounts of the frightful risk to be run in seeing the Centennial have had a great effect; not in diminishing attendance at the great exhibition, but rather in alarming those who congregate to it. The desire to see it is so deep-rooted that the multitude comes, although it may feel like an army going to the conflict. The precautions taken by some of the fearful ones are very amusing. One party we know of brought a cask of the notorious Croton water, and persisted in drinking it at the table-d'hôte and elsewhere, although by standing it had become fairly putrid. Another family, staying fifteen miles away from the city, in a hilly district full of springs of the best water, receive daily their beloved and trusted Croton, bottled at their residence in New York. Ephraim truly is joined to his idols. The hotel-keepers, wine-merchants, etc., owe a debt of gratitude to the New York press, as the extra demand for claret at the table helps in no mean way to fill the general exchequer.

It is indeed true that a number of people have gone home from the Centennial sick or have been taken sick shortly after visiting it, and also that cases of typhoid fever are rather more frequent here than usual. The causes of these facts seem very patent. The whole country is suffering from a slight epidemic of typhoid fever. It is the regu-

lar time of year for this disease to be abundant, and the statistics of all our Eastern cities point to its undue prevalence.

To any one who has watched the Centennial throngs, the wonder is not that some of them are sick after returning home, but that comparatively so few suffer seriously. Numbers of them are evidently unaccustomed to travel, and the chief part of the remainder seem to have left behind whatever of sense nature and experience have developed in them. A very large number of the hardest-working of the people of the United States, from the school-mistress to the President, are accustomed to make up for excessive wear and tear during the remainder of the year by a summer's rest. This year they have spent their vacation at the Centennial, and, after one or two weeks of the hardest possible work, they wonder why they have not recuperated as usual. Travelling day and night to get here; on their feet ten hours a day, with every sense and every intellectual function in the utmost tension; in the evening studying guide-books or catalogues, writing notes or letters, perhaps attending theatres or opera or engaged in dissipation; eating all sorts of food at all sorts of hours; sleeping badly in strange and not always comfortable or uninhabited beds; burning the candle at both ends and in the middle, they wonder why it is they don't improve, and, rising haggard and worn, they read the *New York Herald* and curse the benighted Philadelphians who will drink Schuylkill water, and who in their prejudice fatuously appeal to chemical analyses and physical properties to prove its superiority.

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**THE FIRST BLOOD.**—The Royal Society for the Prevention of Cruelty to Animals have arrested, and had fined one shilling and costs, a Dr. Abrath, of Sunderland, who announced a lecture on Antimony, with illustrative experiments. The vivisection bill had been in operation three days.

#### MEDICAL SERVICE AT THE CENTENNIAL.

THE medical service at the Centennial, although it has been the target for many reportorial arrows, has done an immense amount of good, chiefly in relieving transient and not serious ailments, but in a number of cases in affording relief at just the moment when it was necessary for life. Experience has verified the wisdom of its director, Dr. Wm. Pepper, and of those in authority, who accepted his advice in making the organization that which it is. It will be remembered that there is a surgeon to the guard, who has his headquarters with the regular staff, and acts on occasion as assistant. The regular staff consists of the director, who has no other than general duties, receives no salary, and spends very little time at the grounds, and six medical officers, who are salaried, and who relieve one another at stated intervals, so that each is on duty for three hours a day three days in the week. There are also several orderlies detailed to act as apothecary, assistants, nurses, etc., and a matron, or female nurse.

The organization which has been selected at Paris for the Exhibition of 1878 is different, and perhaps more suitable for the locality. There is to be a physician-in-chief, who will take up his headquarters at the Trocadero so soon as the work begins, and who is to have two medical assistants and two male nurses. In this country a woman nurse would be considered indispensable. With what seems an amazing liberality, a regular provision has been made for allowances, compensation, and, in event of death, indemnity of the relatives of those injured upon the grounds,—if indeed the statements made are correct.

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DR. FRANCIS SIBSON recently died very suddenly and unexpectedly. He was found in the lavatory of a hotel insensible and dying. The cause of death is thought to have been the rupture of a previously unsus-

pected thoracic aneurism. He was a very successful London practitioner, and also very active in so-called "medical politics." From 1866 to 1869 he was president of the council of the British Medical Association, and in the latter year was elected permanent vice-president of the Association. He was a rather prolific medical writer, contributing many papers to "Transactions" and medical journals, and especially renowned for his work on Medical Anatomy. It is stated that during the last three years of his life much of his leisure was occupied in the preparation of monographs upon pericarditis and endocarditis, which are to form a portion of the final volume of Reynolds's Practice, long promised and now stated to be shortly forthcoming. At the time of his decease he was sixty-one years of age.

DR. LAYCOCK died, in the sixty-fifth year of his age, of pulmonary phthisis, on September 21, after an illness whose final outbreak lasted five months, but whose first threatenings dated twenty years before. His first paper was written in 1837, and the whole number of his contributions is stated to have been about three hundred. In 1855 he was elected Professor of the Practice of Medicine and of Clinical Medicine in the University of Edinburgh. The general line of his thought and the greater part of his consulting practice were in the diseases of the nervous system. As a lecturer he was not very popular with the average student, but he always attracted to him the best minds of the class, and is said to have influenced such to a remarkable degree.

PROFESSIONAL INFALLIBILITY.—His Holiness, it would seem, is not the only infallible personage in Italy. At a late celebrated trial before the Assize Court of Florence, involving a question of legal medicine the official medical expert exclaimed in full court, "*Se sbaglio io, sbaglia la scienza.*" "If I am wrong, so is science." We are indebted to a pamphlet recently received from Professor Filippo Pacini, of Florence, for this anecdote.—*Medical Examiner.*

## CORRESPONDENCE.

NEW YORK, OCTOBER 14, 1876.

TO THE EDITOR OF THE PHILA. MEDICAL TIMES:

DEAR SIR:—In all the medical mills the annual process of grinding has commenced; and in each, we believe, the whole mass of complicated machinery is now in smooth running order. Bellevue and the University schools resumed operations in the latter part of September, with introductory addresses by Profs. Crosby and Arnold, and the College of Physicians and Surgeons on October 2, with an address by Prof. Francis Delafield.

The numerous societies, too, have all launched boldly forth upon the sea of expectation (to change the figure of speech rather abruptly), and spread their utmost stretch of canvas to catch what favoring breezes they may from the activity and zeal of their various adherents; though the chances are that some of them, at least, will get woefully becalmed, if not befogged as well, before the season is over.

The first autumnal meeting of the County Medical Society was held September 25, when Dr. S. A. Raborg read a paper on "The Induction of Premature Labor in Contracted Pelves: Its Necessity and Safety in Cases ascertained prior to Full Term;" which was a conscientious production, though it did not reveal any points with which obstetricians are not already familiar.

At the first meeting of the Neurological Society, Dr. Pooley read an interesting paper on "*Hemipia*;" and at that of the Academy of Medicine, Dr. George Bayles read one on "*The Malady of Innutrition.*" In the latter the aim of the writer was to show the effect of insufficient and improper alimentation upon individuals and the community at large. The destitution in this country, he said, was now greater than ever before, owing to the long-continued financial depression; and there was a large class of paupers now in every community that would, in all probability, never be any better off. This is a new element in a nation like ours, where there has heretofore been such unlimited abundance, and reduces the general population more nearly to the level which has so long existed over the greater part of Europe. Dr. Bayles did not dwell on the subject of infantile malnutrition, which is already so familiar to the profession, but went on to speak of the evil effects of defective nutrition on adolescent and adult life. During the past year he had seen a large number of cases of diphtheria among the poorer classes, and almost without exception found that they really depended on faulty nutrition. Here proper food was the best medicine for the patient, and medicine became food. A large class of diseases has been found to have greatly increased with the suffering among the poor, and notably those of a wasting nature,



such as phthisis. Among others may be mentioned various nervous affections, such as hysteria and neuralgia; and uterine disorders have also become much more frequent. But not only is a lack of food to be taken into consideration, but also improper kinds of aliment and their improper preparation; which affect the higher as well as the lower classes of society. The writer alluded especially to the inappropriate food so frequently given to pupils in our fashionable city boarding-schools, to whom it is so essential to have the most wholesome nourishment.

From individuals and families, Dr. Bayles went on to speak of the deleterious effects of innutrition upon communities and upon futurity, and, in treating of the remedies which ought to be adopted to counteract these, mentioned three subjects which should be taken into consideration: *first*, the laws of heredity; *second*, the laws of longevity; and *third*, communal contentment. With all these defective nutrition, if prevalent, interferes in the greatest degree. He concluded by making several practical deductions (one of which was that physicians ought to be efficient sanitary monitors as well as good therapeutists), and a number of suggestions, some of which were rather utopian in character, for improving the condition of society generally.

Dr. Gouverneur Smith thought the doctor laid too much stress on the matter of alimentation, and that other sources for the deterioration of the health of the community ought to be taken into consideration, such as temperament, idiosyncrasy, loss of sleep, lack of ventilation, close application, mental worryment, the excitements of fashionable life, intemperance, etc.

Dr. Peaslee was of the opinion that the importance of innutrition could not be overestimated. Not only does it simply interfere with a wholesome heredity, but it fosters a distinct and malign influence (manifested in phthisis, cancer, etc.) on posterity. Nutrition is really of prior importance to either circulation or respiration, because it *first* makes blood; *second*, causes it to circulate; and *third*, leads to assimilation.

At the first meeting of the Medical Journal Association, Dr. P. Brynberg Porter read a paper on a "*Comparison of Various Methods of Treatment in Pertussis*," in which he stated that in 1872 and 1873 he published papers on the use of chloral in this affection. In these he had expressed the opinion, based on a considerable number of cases in which he had tried it, that this remedy had a marked effect in alleviating the symptoms of whooping-cough, and in a large number seemed to really cut short its duration to a very appreciable extent; and he now mentioned that after giving it a still further and altogether very extensive trial he had seen no reason to change his views in regard to it. In his second paper he had alluded to the successful

treatment of the disease by the use of the fluid extract of *castanea vesca*, by Dr. T. D. Davis, at the suggestion of the late Dr. Parry, of Philadelphia, and also by quinine, in the hands of Dr. B. F. Dawson, employed in accordance with the views of Prof. Binz, of the University of Bonn; but it was not until a considerable time after its publication that he began to make experiments for himself with these agents. In order to make the comparison of the different remedies tried as satisfactory as possible, he first presented a number of cases in which chloral was employed; remarking that, as a rule, the chloral was commenced about the end of the first week of the paroxysmal stage, and that in all its effect was marked in its immediate influence on the distressing symptoms; while the duration of the disease would doubtless have often been still further shortened had the remedy been used with sufficient pertinacity. Whooping-cough, when left to itself, he remarked, rarely ran its course in less than two months. Out of eight cases, the whooping entirely ceased in the first four in from five to six weeks, in the fifth and sixth cases in a week, and in the seventh and eighth in one or two days after the chloral was commenced.

Dr. Porter next detailed some cases in which he had used the quinine treatment, and stated that, without assenting to the views of Prof. Binz in regard to the pathology of pertussis, which Dr. Dawson has adopted, he had always strictly observed the rules which the latter has laid down for the administration of quinine in this affection. (See the *American Journal of Obstetrics* for February, 1873.)

The results obtained in these cases, notwithstanding the fact that sometimes the treatment could not be properly carried out, were excellent as a rule.

Proceeding now to the treatment by castanea, he detailed first a number of cases in which it acted very happily, completely controlling the paroxysmal stage in from one to four weeks, and then a second series in which the remedy seemed to prove of little or no service. He believed that if he could have preserved accurate records of all his cases treated by the three remedies, some definite conclusions as to the time required for the control of the disease by each agent could probably have been arrived at. Still, from an analysis of those which he had presented, he thought it would be found that in the average number of cases, where either of the remedies seemed to be of advantage and was given early, the paroxysmal stage was about three weeks in duration. In some instances it was much shorter, and in others considerably longer than this. In comparison with the others, however, he had found that castanea failed in a much larger proportion of the cases in which it was tried than either chloral or quinine. But in those cases in which it was

really of benefit, its action seemed quite as efficient as that of either of the others. After his more extended experience, he said, he could only reiterate what he had said in his last paper on pertussis, when he had made personal trial of only the chloral: "With three such excellent agents as castanea, quinine, and chloral, it seems to me that whooping-cough ought no longer to be such a formidable adversary as it has hitherto been generally considered; for if one fails, we have the others to fall back upon." He could see no objection to combining any two of them in troublesome cases; though he had hitherto generally confined himself to the use of one at a time, so as to observe the individual action of the remedy in each instance.

After alluding to the uncertain state of the pathology of pertussis, he mentioned a number of other methods of treatment which had been lauded by various authorities. Among the agents tried was the iodide of silver, which has been used with success by Dr. Robert Bell, of Glasgow, who does not attempt to explain the precise action of the remedy, but, believing that whooping-cough is a disease of the gastric periphery of the pneumogastric nerve, thinks the silver-salt acts as a sedative to this morbidly sensitive nerve, preventing reflex irritation being conveyed to its pulmonary ramifications. Wilde claims that he can cure any case of the disease within eight days by the following treatment. The patient is not to leave the room, and at every access of coughing is to hold before his mouth a small piece of cloth folded several times, and wet with a teaspoonful of the following solution: ether, 60 parts; chloroform, 30 parts; turpentine, 10 parts.

Dr. Porter concluded by relating a case in which he had tried the method of a single complete etherization, as recommended in a recent paper read before the New York Neurological Society by Dr. S. D. Powell. To his chagrin, he found that the procedure had no effect whatever on the symptoms or course of the disease.

At the second meeting of the Medical Journal Association, Dr. Edward Frankel read a report on *Pulmonary Diseases*, the greater part of which was devoted to the consideration of thoracentesis (by aspiration and otherwise), cancerous deposits in the lungs, and pulmonary syphilis. In regard to the last-named, the diagnostic value of dullness on percussion over the middle lobe of the right lung (due to infiltration) was dwelt upon, and it was stated that one observer had found this present in twenty-seven out of thirty cases.

At the meeting of the Medico-Legal Society, October 4, the following officers were elected: President, Frank H. Hamilton, M.D.; First Vice-President, Hon. George H. Yeaman; Second Vice-President, Charles S. Wood, M.D.; Recording Secretary, George W. Wells, M.D.; Chemist, R. Ogden Doremus, M.D.

On October 10, Professor Lister, who arrived from California the night before, delivered a lecture, partly clinical, at Charity Hospital, Blackwell's Island, before one of the largest classes ever gathered in the amphitheatre there. In it he gave a concise and lucid explanation of the principles of antiseptic surgery, with which the readers of the *Medical Times* are, doubtless, already sufficiently familiar, and then proceeded to open and dress a bubo in accordance therewith; laying great stress on the strict observance of the minutest details of the process, which is quite essential to success. He sailed for England on the *Bothnia*, October 11.

At his last clinic at Bellevue Hospital, Professor Gouley presented a couple of very interesting cases. The first was a young man whose urethra had been completely severed at the junction of the bulbous and membranous portions by a fall. When first seen, forty-eight hours before, there was a very extensive extravasation of urine into the perineum and scrotum, and the patient's condition was one of imminent danger. Dr. Gouley at first endeavored to pass a catheter, but, all his efforts resulting in failure, aspiration was resorted to, and the bladder successfully evacuated. He incidentally warned the class against giving an anæsthetic before attempting to pass the catheter in such cases, on account of the great danger of the distended bladder's being ruptured during the patient's struggles; considering it infinitely better that a little pain should be inflicted than to run the risk of such an accident. When the urine had been drawn off, the patient was etherized, and he then made a very free incision from the anterior border of the anus through the whole space of the perineum and for a very considerable distance up into the scrotum. This had procured complete drainage; so that the parts were already beginning to assume their normal appearance, and the condition of the patient was excellent. Dr. Gouley now never permits a catheter to remain in the bladder; believing that such a practice is productive of great evil. The instrument soon becomes encrusted with urinary deposits, and ulceration and cystitis are almost invariably induced. In this case it was expected that the urethra (the membranous portion of which had been completely laid open by the operation) would heal by granulation. A large sound (No. 18, English scale) would be passed at first every other day, and afterwards once a week, and narrowing of its calibre thus prevented. It was possible that a urinary fistula might result here; but it was too soon to say what would be the final condition of the parts.

The second case was a lad of about sixteen, who was suffering from injuries inflicted by a very extraordinary kind of enema which was administered to him on the 4th of July last. On this occasion some maliciously-disposed individual placed the muzzle of a large pistol

charged with gravel-stones at his anus, and deliberately pulled the trigger; occasioning, as may readily be imagined, a very confused and uncomfortable state of affairs in the vicinity of the boy's fundament. In the course of time, however, the injured parts all healed up, though ever since the accident he has voided his urine by the rectum. On examination, it was found that a sound would pass for six inches into the urethra, when it came to a sudden stop, and that there was a small fistulous orifice in the anterior wall of the rectum, about an inch above the anus. It was impossible, however, to pass even the smallest probe through the latter into the bladder; though this might be due to the great tortuousness of the canal. No other opening whatever could be discovered through which the urine might make its escape. This fistula has recently showed a tendency to heal up, and only a day or two before the patient had suffered from retention of urine, which it was necessary to relieve by means of the aspirator. By rectal exploration it was thought that the remains of the prostate could be detected, though this was not made out with certainty.

After consultation with Professors James Wood and A. B. Crosby, who were present, Dr. Gouley made a free incision in the median line of the perineum, and cut down upon a sound which had been passed into the urethra by the meatus urinarius. Then, having passed the extremity of the sound out through the perineal wound, he inserted a silk suture through the remains of the urethral wall on each side, and, using these as guides, endeavored to find the continuation of the canal, if possible. Entirely failing in this, however, with a small straight bistoury he cut upward through the firm cicatricial tissue lying just anterior to the rectum, and finally succeeded in getting into a pouch which he believed to be a portion of the bladder; though of this he could not be quite certain, as it seemed to contain no urine. He was of the opinion that before night urine would come out through the perineal wound. In case no urine was found to escape, however, there would probably be retention again, and then the distended condition of the bladder would enable him to find and cut into it readily. It was reasonable to suppose that in this case the bladder would be much contracted; yet at the time the aspiration was made a pint and a half of urine was drawn off. At a second operation Dr. Gouley said he would probably make a new urethra for the patient, if possible; though it was a very unusual and complicated case, and he would have to be guided by circumstances in its future management.

It is said that the number of insane committed to the city asylums has steadily increased during the present year, sometimes as many as thirty patients being received in a single week; and this increase in insanity is attributed at the Department of Charities and

Correction to the want of work, and consequent suffering, so long prevalent among the poorer classes.

The New York Foundling Asylum has just celebrated its seventh anniversary, and the annual report, read at that time, shows that since the opening of the institution in 1869, 7743 infants have been received. A large number of the foundlings are taken care of by mothers living in the building, who, in addition, nurse their own children; but a great many are also boarded out through the city, and during the year just ended \$118,000 was paid for the care of the latter. A farm and home has been started in Westchester County, under the care of the same Sisters who have charge of the New York house, where it is proposed to train the children to useful avocations as soon as they arrive at a suitable age.

Many of our physicians were among the guests invited to a private view of the extensive aquarium which has been opened in this city during the past week. It comprises a very admirable collection of a vast variety of fish from all parts of the world, and affords a chance to those interested in ichthyology to study them in their native state, at the same time that it offers rational and innocent entertainment to the general public, who may not care especially for its scientific advantages. The object which attracts the most attention in the exhibition is a white whale, fourteen feet long, and weighing 1200 pounds. It was captured in the Gulf of St. Lawrence in July last, but arrived in New York only the day before the aquarium was opened.

Two young ladies recently died at Connecticut Farms, near Elizabeth, New Jersey, from eating toadstools in mistake for mushrooms; and a third one, who also partook of the poisonous fungi, barely escaped with her life. Though the distinctions between the two species are so marked that it seems hardly likely that any one should mistake one for the other, it is certainly the safer way to leave the collection of mushrooms for cooking purposes to those thoroughly skilled in this respect by long practice.

PERTINAX.

## PROCEEDINGS OF SOCIETIES.

### PROCEEDINGS OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

Reported by F. WOODBURY, M.D.

THE PRESIDENT, DR. GOODELL, in the chair.

AT a conversational meeting, held January 12, 1876, a paper was read by Dr. HORACE Y. EVANS, entitled "The Variations of the Pulse,"\* which received a vote of thanks. In opening the discussion upon the subject,

\* See page 28.

Dr. GEORGE HAMILTON said, "Some authors have referred to a sudden fall in the frequency of the pulse, amounting to 30-35 beats to the minute, sometimes seen in typhoid fever, without being associated with any perceptible corresponding change in the general or local condition of the patient. In other instances the pulse becomes so frequent that it is difficult to count with accuracy, and yet no other alarming symptom may exist, and this, too, in affections that cannot be called nervous. In convalescence from typhoid fever, when the patient's appetite is good and the strength is daily increasing, the pulse may remain quite rapid, and it is by no means always possible to refer this to protracted sub-acute inflammation of the glands of Peyer, as some writers have taught. A slow pulse, devoid of tension, or, if more frequent, soft, small, and of feeble action, is often more to be dreaded than where arterial excitement is present. The former is the characteristic pulse of passive congestion; a condition that is generally united with great loss of nerve-power, caused by the violence of the primary morbid agent. This form of disease was manifest during the cholera of 1832, and found, perhaps, its more prominent illustration on some of the plantations of Louisiana, where many of the negroes died without vomiting or purging, yet, evidently, from the same epidemic influence to which their companions succumbed in the usual form of this disease.

"The same condition occurs in malignant intermittent, in congestive chill, at times in typhoid pneumonia, and in typhoid fever; the patient in the last-named affection dying, perhaps, within the first week, whilst the more usual fatal period is in from three and a half to four and a half weeks. Many of the devastating epidemics of the Middle Ages owed their fearfully sudden mortality to passive congestion, in the production of which the morbid agencies seem to have acted primarily upon the brain and spinal marrow, or, if secondarily, involved these organs and their direct connections with great rapidity, and thus venous congestion, in place of arterial reaction, was established, with its usual sequence,—a great and sudden fatality."

Dr. EVANS had noticed a peculiar paroxysmal movement in the radial artery, Stokes being the only writer whom he had found to make mention of it.

It consisted in a longitudinal motion of the artery, independent of, and not synchronous with, the impulse of the heart. He had seen it in two cases of angina pectoris, both of which terminated fatally.

In regard to Dr. HAMILTON's remark about early death in zymotic diseases being attributable to congestion, he had noticed in the congestive chills of the Southwest that the blood was notably depurated, but thought that the congestion was not due primarily to the heart or vessels, but to the profound effect

on the nervous system of the septic agent. The congested and paralyzed lung refused to deliver the blood to the heart; and he had noticed the heart fairly quivering in its efforts to keep up the circulation.

Dr. JOHN G. STETLER considered the tongue, in many cases, a better index of the patient's condition, and a safer guide for rational treatment, than the pulse, which is, confessedly, under the control of the emotions, and apt to mislead the physician by exhibiting conditions due either to these or to local causes, such as organic diseases of the heart or arteries, and not to the disease about to be treated.

There are few points concerning which physicians differ as much as they do in regard to the frequency of the pulse in a normal or physiological state. This remark also applies not unfrequently to pathological conditions. Thus, whilst the pulse is generally increased in debility and depression, occasionally it is slower than normal in these conditions. Taking into consideration, then, the varying conditions of the heart and arteries, the amount and constitution of the blood, it may be affirmed that we cannot rely upon the report of the pulse as an index of the general condition of the system and as the indication for a proper line of treatment. The tongue, on the contrary, seems to have been designed as an index to the eye to exhibit the general state of the system, local causes excepted. The size, color, temperature, condition of moisture or dryness, mode of protrusion, the fur and manner in which this is shed, "serve as one of the surest guides to a correct judgment in relation to the degree, progress, and present stage of the disease, and afford the most valuable and reliable therapeutic indications."

There are certain conditions of the tongue concerning which there are scarcely two opinions as to the indications of treatment. It is doubtful whether as much can be affirmed of *any* condition of the pulse.

Dr. HAMILTON said he could not consider the appearance of the tongue as of equal value with the pulse, either as regards the prognosis, or as furnishing indications for the treatment, of disease. The blood has been well called the "life; the heart is the fountain-head from which the vital current is distributed to every part of the organism," and in order to accomplish this work it is in close relation with the brain and its extended appendages, so that these two organs are in an especial manner the centres of vitality. In this point of view, then, it is not difficult to see how important and extensive is the rôle assigned to the heart in maintaining the functions of the animal economy. The pulse may, therefore, justly be viewed as of paramount importance in the study of disease, and to a just consideration of its varying conditions are we more indebted, as a general proposition, for our knowledge of that which promises life or threatens death, and of the means to be em-



ployed for preserving the former and averting the latter, than to any other element of the human organism.

Dr. WM. B. ATKINSON said, "I was called recently to a case of miscarriage, or abortion, probably caused by the fatigue or physical discomfort of a long journey. The baby was born dead before I arrived, and, after removing the secundines and making the mother comfortable, I sat down to converse with the patient. Placing my finger on the pulse, perhaps not accidentally, but more as a matter of form or custom than with the anticipation of anything wrong, I was struck with its feebleness and want of impulsive force, though it was not much, if at all, accelerated. Without losing time in first making the physical examination, I at once gave brandy and ergot in decided doses, and then proceeded to turn out the clots from the vagina and treat actively the supposed concealed hemorrhage. To my surprise, digital exploration revealed nothing abnormal. Everything was going on excellently well. The patient afterwards told me that her physician at home had informed her that there was some peculiarity of her pulse. Her radial artery now beats about sixty times in the minute, and is quite feeble, almost thready, sufficiently so to alarm any one who should observe it for the first time without premonition. As another variety of alteration in pulse, I may mention the case of a personal friend, who suffered, some time ago, from a congestive chill, and ever since, although his health is apparently good, with the exception of dyspepsia, he has had a pulse that loses, on an average, one beat out of four, and his circulation is so defective that his hands and feet are constantly cold. Even on a warm day in the middle of summer this unpleasant symptom annoys him."

Dr. CHAS. K. MILLS said that he would like to hear some remarks on the correlation of the pulse and the temperature, to ascertain whether or not there is any absolute connection.

Dr. C. R. PRALL wished to ask Dr. Atkinson how it was that the slow pulse of his patient indicated flooding. In his experience, he had always found a frequent and feeble pulse in cases of hemorrhage.

In reference to Dr. Mills's question, he would say that the temperature bears a striking and constant relation to the pulse and respiration. In almost every case of disease, when the pulsations and respirations increase in frequency, there is a corresponding elevation of temperature; and so in the decline of a disease, when the pulsations and respirations become less frequent, the temperature is proportionately reduced. But a degree of temperature which accompanies a fixed rate of pulse and respiration in one individual will not always accompany the same rate of pulse and breathing in another. The pulse may be 120 and the breathing 30 in a minute, with a

temperature of 104°, in one person, and the same rate of pulse and breathing in another person may have a temperature of 101°. So the correlation of the three symptoms is confined, generally, to those symptoms as they are found in each individual case.

Dr. EVANS said, in reference to Dr. Atkinson's case, it was important to discriminate between the *rapid* and the *quick* pulse. It is perfectly possible to have at the same time a slow pulse as to rate and yet quick in its impulse, and the reverse, rapid in rate but tardy or prolonged in impulse.

As to the relative value of the tongue and pulse as indicators of the condition in disease, where the tongue is used once as a guide, the pulse is depended upon a hundred times.

If the pulse, from central organic disease, mislead the observer, it is his own fault. Any abnormality of the pulse should lead him to interrogate the heart by auscultation. The temperature and pulse generally rise and fall together, except where organs like the lungs are invaded. As a rule, it may be stated that a temperature of 105°, if sustained longer than twenty-four consecutive hours, is incompatible with life, owing to the rapidity of tissue-change. In sthenic cases, the elevated temperature is due to the increased activity of the circulation.

If the pulse remains excessively rapid while the temperature falls, it is often premonitory of dissolution.

Dr. WOODBURY questioned the statement that a temperature of 105°, on the surface of the body, was incompatible with recovery, if it continued more than twenty-four hours. In his personal experience as a resident in Pennsylvania Hospital, he had seen this exceeded. He knew of a patient, a case of cerebral rheumatism, that maintained a temperature of 108° for several days, and subsequently recovered; and Dr. Da Costa, in a recent article, reported a recovery in the same disease after a temperature of 110° in the axilla.

Dr. ATKINSON.—The thermometer has been referred to several times this evening, but no mention has been made of an instrument of recent introduction—the thermoscope—which promises to be of equal service, and, on account of its simplicity and cheapness, of more general application. The inventor, Dr. Seguin, of New York, sent me one some time ago, and I believe that mine is the only one used in this city, although quite a number have been sold in New York. It indicates, instead of degrees of heat, the variations in a patient's temperature from day to day, which is, after all, the point of practical importance. To revert to Dr. Prall's question, I would say that I never was of the opinion that a slow pulse indicated hemorrhage, but it was the other characters of the pulse of my patient that pointed to exhaustion and collapse that led me to believe that she was the victim of the most prominent and active danger of the

parturient woman, the possibility of which haunts the mind of every intelligent practitioner during his attendance at the lying-in chamber. The question having already been answered by the appropriate remarks of Dr. Evans, I need not answer it more in detail.

Dr. S. D. RISLEY mentioned a curious case in connection with the subject. He had attended a man, a hard drinker, who had an attack of excessive weakness, without any active sign of physical illness. He was not sick enough to be in bed, and there were no symptoms pointing to brain or spinal disease. He had no obvious liver- or kidney-trouble, but his pulse remained in the neighborhood of 40 beats per minute for two or three weeks. This was thought to be idiosyncrasy, and the patient was lost sight of after regaining his strength sufficiently to enable him to pursue his business. Some months later, accidentally meeting him, and taking the opportunity to examine the pulse again, it was found to beat 72 to the minute.

Dr. WOODBURY inquired whether the patient just spoken of had suffered from intermittent fever, or lived in a malarial region. A curious fact in connection with poisoning by malaria is that after an attack of intermittent fever the pulse, without any other assignable cause, will sometimes become quite slow and full, simulating the pulse of cerebral disease, and quite likely to alarm one who is not on his guard. This fact the speaker mentioned on the authority of Dr. J. F. Meigs, who frequently refers to it in his clinical lectures.

Dr. S. D. RISLEY answered that he was not aware of any malaria in the case. He recalled another case in contrast, where the patient, applying for life insurance, although all his answers were perfectly satisfactory, had a pulse of 125, which, after a short rest and conversation on general topics, came down to 80. There was no disease of the central organ of the circulation.

Dr. GEORGE E. STUBBS thought the pulse a most important agent, taken in conjunction with accessory symptoms, in furnishing evidence of the general state of the patient. The thermometry of disease, and the law governing the relation of pulse and temperature, could not be ascertained by reference to isolated cases, but required patient, careful, and systematic observation of a large series in order to yield reliable data. This has been done to a large extent by the Germans, more particularly Wunderlich and Liebermeister. As an examiner for life insurance, with an experience extending through a number of years, he had noticed that where longevity is a family trait, the pulse in the healthy adult risk under fifty years is about 72, and, where no family history could be obtained, had always regarded such a pulse as a favorable sign, and its possessor as an excellent risk to recommend to the company.

Dr. BENJAMIN LEE desired to thank the

gentleman, who had just taken his seat, for announcing the conclusion to which he had come in regard to the pulse-rate which indicated longevity when under the fingers of a life-insurance examiner. He knew of no conditions under which a man could be placed more likely to excite the pulse and increase its frequency. His own pulse was an exceptionally slow or infrequent one. When in a state of complete rest, it averaged about 50; and when he was in need of food, it often fell below 45. On applying for examination, some years since, with a view of taking out a policy, he took the precaution to mention this idiosyncrasy, fearing that it might mislead the examiner, and was somewhat surprised to be informed that his pulse at that moment was 72. The fact of the gentleman having determined that as the rate most propitious to length of days was, therefore, a very comforting one to him. Personally, he would like, however, to have the opinion of the lecturer as to the significance of an *abnormally* infrequent pulse in health.

Dr. EVANS stated that not more than one in a hundred *healthy* individuals of middle life will have a pulse much under 75. Where this does occur, it is a congenital peculiarity, and is an exception. He once examined an old gentleman whose heart intermitted two beats in every ten, without any evidence, apart from this, of disease.

Dr. LEE said that he could hope to add little in the way of experience to what had been said in regard to the pulse in acute disease. He had of late years seen so little of such disease that he had not kept pace with the science of the day in the matter of the delicate correlation between the pulse, the temperature, and the respiration. In regard to the question of the evening, the relative value of the indications afforded by the tongue and the pulse, he found himself quite unable to agree with his friend Dr. Stetler in assigning the pre-eminence to the former.

In chronic surgical affections, where operation became necessary, he was always accustomed to rely almost entirely, on the day following such operation, on the state of the pulse for both prognosis and treatment. If it was not materially increased in frequency, soft and quiet, he held that the chances were extremely good; but if it was accelerated and irritable, he at once dreaded septicæmia, and made his preparations accordingly. He never thought of consulting the tongue for information in such cases. There was, perhaps, this difference, however, between the revelations of these two important factors in forming an opinion. The pulse tells us, from day to day, what the changes are in our patient's condition. We depend not so much on its report at any one time as on the comparison of that report with that given in a previous visit. It is to us a gauge of the varying force of disease or of vitality. But the tongue, in certain

marked conditions especially, showed the state of the system just at the time of the observation, and indicated the preferable course of treatment. A dry, brown, fissured tongue in acute disease had but one signification, and presented always the same indications.

BIOLOGICAL AND MICROSCOPICAL SECTION OF THE ACADEMY OF NATURAL SCIENCES.

SEPTEMBER 11, 1876.

Vice-Director, JAS. TYSON, M.D., in the Chair.

ON motion, Prof. T. G. WORMLEY, of Columbus, Ohio, being present, was invited to exhibit his improved double slides, displaying two kinds of blood-corpuscles, human and dog, also human and cat, in the same field.

Prof. WORMLEY placed a preparation of human and dog's blood beneath one of the microscopes, and stated that it was prepared by his assistant, Dr. C. L. Mees, by spreading a thin film of human blood upon the slide, according to Prof. Christopher Johnson's method (with the edge of a strip of glass), and then scraping off part, say the right-hand half of the film, with a sharp knife, leaving a vertical row of good fields near the centre of the slide. A thin glass cover, similarly prepared with dog's blood, was then inverted on the slide, and so arranged under the microscope as to bring the sharp boundary line on the (actual) left of the human blood in exact contact with the like well-defined edge on the right of the group of dog's blood-corpuscles, and cemented in that position.

Dr. RICHARDSON remarked that he first contrived a plan for thus demonstrating the contrast in size between the corpuscles of human and certain animal bloods in January, 1874, his method being to spread with narrow strips of metal or glass two streaks of blood intersecting each other at a very acute angle, near which point would be found (in successful preparations) fields displaying red disks of the two different kinds in close juxtaposition. The one disadvantage of Prof. Wormley's slides seemed to him to lie in the fact that, when photographed, they gave the appearance of having been made from a patched-up negative or double print, and would therefore be less convincing to a jury if used in a criminal trial.

Dr. JAMES TYSON thought there was not much force in Dr. Richardson's objection, and, indeed, had often thought there was scarcely any use in taking a microscope into court, as anything shown with it could add but little to the reliability of the evidence.

Dr. WORMLEY observed that his preparations were intended for illustration chiefly, and that, in his experience, courts had very properly, in general, ruled out evidence by the microscope, holding that the reliability of the expert himself must be the support of his testimony.

Dr. SEILER inquired what practical use these double slides could be put to, if they were not to be exhibited in court to demonstrate to jurors the difference between the two kinds of blood upon which the question in any particular case might turn.

Dr. TYSON replied that it might be quite proper to use as evidence photographs, which every one could comprehend, but improper to employ a microscope, which no one could understand unless he were specially educated.

Dr. SEILER suggested that, in that case, Dr. Richardson's objection would hold good.

Dr. RICHARDSON remarked that he did not intend to make objection to Prof. Wormley's very ingenious method, which he considered a decided improvement over his own in most respects. He would like, however, to ask Prof. Wormley whether he had ever seen slides prepared in this way before he showed them to him at his office in Philadelphia during January last.

Dr. WORMLEY replied that he had not, but did not think that the mere arranging of two varieties of corpuscles close together upon the same slide, as had often been done with diatoms previously, was of much importance.

Dr. RICHARDSON suggested that, although needles had been used from time immemorial, Howe was generally allowed some credit for originality in contriving the sewing-machine, just as Watt was for the steam-engine.

Dr. WORMLEY did not consider the idea under discussion was comparable to these examples.

Dr. RICHARDSON said he did not intend to apply for any patent, but nevertheless claimed for the idea, as furnishing a mode of convincing demonstration, a small yet definite value, which remained with the originator in spite of minor changes in the method of putting it into practice.

After inspecting Dr. Wormley's beautiful specimen of human and dog's blood in the same field, Drs. Ruschenberger, Tyson, Seiler, Pierce, Ludlow, Buckingham, Schaeffer, and Richardson all agreed that the corpuscles upon the left side of the field (human blood) were on an average decidedly larger than those upon the right side (dog's blood). Dr. Kenderdine, however, declared that the corpuscles were equally large on the left and on the right.

Dr. SEILER asked Dr. Wormley whether he had noticed any difference in various kinds of blood as to their action upon light, making this inquiry because he had observed that human blood-corpuscles differed slightly from those of other mammals in appearance.

Prof. WORMLEY replied that there was a peculiar physiognomy, character, or outline of the corpuscles in human blood, which cannot be expressed in words, and yet may very generally be recognized by an observer familiar with the study of the circulating fluid.

Dr. SEILER suggested that this peculiarity consisted partly in the fact that the corpuscles of the dog, ox, cat, etc., were more lenticular than those of man.

Dr. TYSON remarked that this peculiar physiognomy of the human blood-disks spoken of by Prof. Wormley was evidently the "cachet" of the corpuscles alluded to by Prof. Christopher Johnson in his paper on the "Microscopy of the Blood," discussed before the Section on Biology of the International Medical Congress.

Dr. RUSCHENBERGER stated that by the word "cachet" was meant the trade-mark, or rather the *stamp of individuality*, of the corpuscles in question.

Prof. WORMLEY then exhibited another double slide, of human and cat's blood, in which the contrast was very obvious, and Dr. Kenderdine remarked that it was sufficient to hang a man if a decision turned upon the difference.

Dr. TYSON inquired of Prof. Wormley whether this strong contrast, which was so evident in the specimen beneath the microscope, could be demonstrated with equal clearness in corpuscles from blood-stains which had been dried and moistened again.

Prof. WORMLEY replied that, by the use of suitable menstrua, the corpuscles could be re-obtained from blood-stains with little or no alteration of their magnitude.

Dr. J. G. RICHARDSON fully confirmed this statement from his own observations in an immense number of experiments.

Prof. WORMLEY mentioned that he intended very soon to publish his method of investigation, together with the results of an extended series of observations.

Dr. RICHARDSON remarked that his statement published seven years since having been to some extent misunderstood, he would just say, while the subject was under discussion here, that he had never claimed to be able to distinguish the corpuscles of human blood absolutely, but only to make a diagnosis between ox, pig, or sheep's blood and the blood of man, when the query was narrowed down to this question, so as to disprove in a criminal case the false statement of a guilty prisoner. Perhaps he could best illustrate the exact point at issue by repeating his observation to Prof. C. Johnson, of Baltimore, in the late International Medical Congress, when that gentleman mentioned that he found it impossible to discriminate human from dog or guinea-pig's blood in some specimens submitted to him by Dr. J. J. Woodward, to wit: "This is precisely what I should expect; but I wish to ask Prof. Johnson whether, if Ananias (by way of complete antithesis), instead of Dr. Woodward, should submit to him an unlabelled slide of blood, declaring that it was that of sheep, yet on which the corpuscles were found to average  $\frac{1}{1000}$  of an inch in diameter, could he not say without hesitation, 'Ananias, you lie'?"

Dr. KENDERDINE suggested that such a

reply would be induced by the well-known character of Ananias for untruthfulness, but he would ask Dr. Richardson what could be said if he (Dr. Kenderdine) brought forward a similar slide and statement in regard to it.

Dr. RICHARDSON answered that would not make the least difference, because, if he should advance such a misstatement (of course an impossible thing for Dr. Kenderdine to do), the inevitable conclusion would be that he had become a disciple of Ananias.

Prof. WORMLEY inquired whether Dr. Richardson would decline to attempt the diagnosis of human blood from that of animals whose corpuscles approximate more nearly to it in size than do those of the ox or pig; and if so, why he had adopted these magnitudes as limits beyond which discrimination was impossible.

Dr. RICHARDSON replied that, in his paper published in the *London Microscopical Journal* for May, 1875, he had explicitly stated that, when the life of a fellow-being was at stake, he believed stains of human blood could not be distinguished with absolute certainty from those of blood from any animal whose corpuscles averaged more than  $\frac{1}{1000}$  of an inch in diameter. He admitted that this limit was an arbitrary one, and that in suggesting it he had perhaps been unnecessarily cautious, but believed that, if erroneous, the error was on the side of safety.

Dr. TYSON could understand that such discrimination might be made in carefully preserved spots on glass or highly-glazed paper, but thought stains upon cotton or woollen fabrics, where the fluid portions of blood were rapidly absorbed, would present much greater difficulties, especially after being freely exposed to the atmosphere for long periods of time.

Prof. WORMLEY stated that he had measured a series of seven human blood-corpuscles, the same referred to in Dr. Richardson's paper of July, 1874, at intervals during the space of three years, and was satisfied no variation in size had occurred.

Dr. RICHARDSON said he had made numerous investigations upon blood-stains on muslin, linen, and cloth, after at least a year's exposure, with entire success, and inquired of Prof. Wormley whether he had ever detected any difference in the size of blood-corpuscles soaked out from stains on linen, wood, etc., and those from spots upon paper or glass.

Prof. WORMLEY replied that he had not found any variations in corpuscles from blood-stains dried on a great variety of objects and kinds of fabrics. He then exhibited another slide, displaying circular bodies about  $\frac{1}{1000}$  of an inch in diameter, and strongly resembling human blood-corpuscles partly acted on by water. They were, however, quickly pronounced by Dr. Seiler fungous spores, and Dr. Kenderdine remarked that they resembled to some extent the spores of *Ustilago*.



## REVIEWS AND BOOK NOTICES.

ZIEMSEN'S CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. VOL. XI. DISEASES OF THE PERIPHERAL CEREBRO-SPINAL NERVES. By WILHELM HEINRICH ERB. Translated by Mr. HENRY POWER, of London. Wm. Wood & Co., New York.

Of all medical books that adorn our library-shelves this is among the most satisfactory. Thorough, clear, the work of one learned in the learning of the schools and also in the learning of the laboratory and clinic-room, it not merely reflects the science of the day but carries it beyond that of yesterday. It is perhaps too full and elaborate for the average practitioner, but for that very reason is of the more value to the student. The practical part might be condensed, in these days of compends, into a moderate volume for the professional mass, and no doubt would be swallowed more readily; but Dr. Erb, true to his German instincts, has made a volume of over 600 pages, which is soul-satisfying to the man who wants to know all that is to be known upon the subject. In the pathological portions we wish it had been put into the heart of the publisher to lighten the task of the reader with a few diagrams; but we suppose we ought to be thankful for the enterprise that has spared us the labor of wrestling with the polysyllabic gutturals that arise from amid the smoke and beer-fumes of the German workshop. For solid ponderosity, as well as for original research and thoroughness, all honor to the conquerors of Sadowa! And surely in the peaceful rivalry of science Professor Erb has well carried forward his country's standard.

CHEMISTRY, GENERAL, MEDICAL, AND PHARMACEUTICAL. By JOHN ATTFIELD, Ph.D., etc. Seventh Edition. Philadelphia, 1876. H. C. Lea.

A book which has passed through six editions in nine years needs from journalists only such announcements as are necessary to keep the profession aware of the continued interest of the author in his progeny. We therefore are content with the commendation that the book before us is brought abreast of the times.

COMPENDIUM OF HISTOLOGY. Twenty-four Lectures by HEINRICH FREY. Translated by GEO. R. CUTTER, M.D. New York, G. P. Putnam's Sons.

This large octavo of 275 pages is an attempt to present briefly and clearly all established facts of histology, and at the same time to point out, with equal clearness, the limits of our histological knowledge. The name of Professor Frey is a guarantee of the accuracy of the work, and we have been delighted with its simplicity and pellucidness. It is to our thinking not only what the student wants, but also what is wanted by the practitioner who desires to be *au courant* with the science, but who

does not work much with the microscope and has not time for the minuteness of detail and for the multiplicity of polemics which magnify the text-books into volumes. As a specimen of the publisher's art the book is all that could be desired. The two hundred and eight woodcuts are beautifully clear and distinct.

## GLEANINGS FROM EXCHANGES.

PAPILLOMA OF THE BLADDER WITH PROTRACTED HÆMATURIA (*The British Medical Journal*, September 30, 1876).—At a recent meeting of the Pathological Society of Dublin, Dr. A. W. Foot exhibited a specimen of villous tumor or papilloma of the bladder, from the body of a man, aged sixty-five. It occupied the usual, according to Rindfleisch the invariable, situation of such tumors, the *trigonum vesicæ*, springing from a base of irregular outline about two inches broad by two inches and a half long. It had involved and occluded the orifice of the right ureter, which was impervious to the finest probe; this ureter was so dilated as to equal in breadth parts of the contracted colon in the same subject. The right kidney was expanded with retention cysts, and its parenchyma was much atrophied by the pressure of its distended pelvis, infundibula, and calyces. The capacity of the bladder was increased; its mucous membrane, of a pale cream color, was more or less bathed in pus from recent cystitis. Viewed under water, the papilloma exhibited a pale, soft, shaggy structure, protruding about half an inch from the mucous surface. The patient had suffered for many years from internal hemorrhoids, which frequently bled, often for a fortnight at a time. Three years before his death, the piles ceased bleeding; and hæmaturia came on, and continued, with the exception of an interval of two months, to within a week of his death. He came into the hospital a month before his death, because of painful and frequent micturition, which had not previously attended the hæmaturia. The urine was as dark as porter, and showed hosts of blood-corpuscles. There was neither œdema, dyspeptic symptoms, nor lumbar pain; no evidence of renal or vesical calculus, of purpura, or of enlarged prostate. The diagnosis was considered to lie between villous tumor and hæmaturia vicarious to the habitual discharge from the hemorrhoidal veins. Much difficulty ensued from the coagulation of the blood in the bladder after the use of styptic and astringent medicines. Neither washing the bladder with a large double catheter, nor the use of the aspirator-catheter, nor oval suction of the catheter removed sufficient clot to relieve the urgent symptoms. Dr. Foot attempted the digestion of the blood-fibrin by injecting the bladder with a solution of pepsin, 20 gr., dilute hydrochloric acid, 3ij, tincture of opium,

3j, warm water, 4 oz. This, though it occasioned much smarting, was followed soon by the easy passage of much softened coagula. Cystitis resulted probably from the amount of instrumental interference; and the urine, retaining its porter color, became alkaline, ropy, and fetid. These symptoms subsided under the use of salicylic and benzoic acids, and the urine regained its usual odor and acidity, lost its hemorrhagic character, but exhibited a deposit of pus-cells. The piles at once again began to protrude and bleed, forming large, irreducible, oedematous tumors, which were relieved by leeching and puncture. While the patient was hopeful of his restoration to health, rigors and vomiting suddenly occurred, followed by rise in pulse, temperature, and respiration, and soon afterwards by an apathetic and drowsy state, and he sank in fifty hours after the appearance of this febrile movement.

**FETID FEET.**—A very obstinate case of this complaint, in a workman, is reported in the *Bull. de Thér.* by Dr. Ortega. In the manufactory in which he worked he was avoided by his fellow-workmen, and when he entered a room the window would be opened. He had consulted several physicians, but without success. The epidermis of the sole of the foot was white and macerated, and there were little ulcerations at the clefts of the toes and around the nails. M. Ortega advised him to apply compresses soaked with a solution of chloral, which had the effect of rapidly destroying the smell and curing the ulcerations.

**TWO CASES OF COMPOUND FRACTURE OF THE LEG** (*The British Medical Journal*, September 30, 1876).—In the University College Hospital two cases of compound fracture of the leg were treated in the same ward and at the same time by Mr. Christopher Heath, one on the antiseptic plan, the other by the open method. In the first case the wound was a small one, and was treated antiseptically from the first with very good results. In the second and older patient the fracture became compound, as the result of a fit of delirium tremens, and the bones became so displaced that Mr. Heath found it necessary to remove a portion of the tibia with the saw in order to effect reduction. This patient made a good recovery, with a wound dressed with oakum, so as to absorb all discharges, and was sent out with the fractures firmly united. The daily temperature was carefully taken in both cases; and it is remarkable that, notwithstanding the greater severity of the injury in the second case and the open condition of the wound, the temperature was on the average no higher than that of the antiseptic case.

**SYPHILITIC PHTHISIS** (*The Boston Medical and Surgical Journal*, October 12, 1876).—Fournier, in an elaborate lecture on the pathology and clinical features of syphilitic phthisis, recognizes only two forms of syphilitic lesions, (1) simple hyperplasia and (2) gummata, and says that the diagnosis of this

disease is very difficult. There is a remarkable tolerance of the lesions by the system, even when they are extensive, the patient retaining his flesh and strength to a considerable degree. When this is the case, syphilis should be suspected. M. Fournier admits that this tolerance of the system is seen also in scrofulous phthisis, and therefore cannot be depended on for diagnosis; but he advocates in all doubtful cases the application of specific treatment, which will soon settle the question. The treatment recommended consists of large doses of iodide of potassium (two to six grammes daily), and small quantities of mercury by inunction, fly-blisters, cupping, and iodine locally, cod-liver oil, bark, etc. M. Fournier ends with the following axioms: (1) Tertiary syphilis can produce in the lungs lesions which either locally, or by reacting on the general health, simulate pulmonary phthisis. (2) These pulmonary lesions of syphilis are often amenable to specific treatment. However grave and important they may appear, they are far from being always beyond the resources of art. (3) Consequently, when a case of pulmonary lesion presents itself, it is important, unless the existence of tuberculosis be quite certain, to ascertain if the lesion can be traced to syphilis. It is necessary always to bear in mind that syphilis is a possible cause of pulmonary lesions. (4) When syphilis can be suspected to be the cause, the primary indication is to prescribe specific treatment, which in similar cases has been sometimes followed by the happiest results.

**REDUCTION OF STRANGULATED HERNIA** (*Nashville Journal of Medicine and Surgery*, September, 1876).—Dr. B. H. Washington says that for many years he has employed a painless, easy, and quick plan of reducing strangulated hernia, which he considers far superior to the ordinary tedious, painful, and sometimes dangerous taxis. This plan consists in applying a dry cup to the abdominal wall, say over the umbilicus; then let an assistant stand between the legs of the patient and lift the hips as high as he can; then the operator, drawing on the dry cup, produces a vacuum, and, atmospheric pressure being superadded to the weight of the intestines gravitating towards the chest, a reduction is easily effected in less than a minute.

The operation is almost painless, and really seems so to the patient, for the relief from the preceding pain is so great that he never says a word about any suffering from the operation.

Dr. Washington adds that the Russian peasantry reduce hernia by dry-cupping on a grand scale: they take a small cooking-pot, and make the bottom as hot as they can without making the rim too hot, and then, applying it over the abdomen, cool the bottom with cold wet cloths, and thus suck up such a large portion of the intestines that they are

able to make traction enough on the intestine to draw it back again into the abdominal cavity, though the patient has not the hips elevated.

THE TRANSMISSION OF SYPHILIS (*Archives of Clinical Surgery*, September, 1876).—Dr. R. W. Taylor, who is an able and intelligent upholder of Kassowitz's theory of the transmission of syphilis,—who believes, that is, in the possibility of the disease being transmitted to the child from a syphilitic father without contamination of the mother,—has added an important contribution to the study of this question. He gives two cases, studied with great care and observed for many years. Presented in brief, the facts of the first case are these. A man, with early syphilis, impregnates a healthy woman; she, showing no evidence of the disease, brings to the world, first, a dead child, probably syphilitic, then five undoubtedly syphilitic children. During this period the syphilis of the father is in an evidently active condition. When under treatment he is seemingly free from the disease. His wife in this time bears a child which is free from syphilis, and remains so. This disease being influenced by treatment, it again develops itself, the power of contagion returning; and then the wife, becoming pregnant, has another intensely syphilitic child. Being again treated, and apparently cured, he again impregnates his wife, and she then bears a healthy child, which within a year shows no evidence of syphilis. The vital point in this case is whether the woman was syphilitic or not. To prove this point Dr. Taylor examined her minutely and repeatedly many times, but failed to elicit one suspicious fact or symptom. He thereupon asks the question whether, in the light of our knowledge of hereditary syphilis, we should have truth and reason on our side if we admitted that so active a condition of syphilis as was observed in these children could arise from a mother in whom no evidence of even the slightest syphilis could be discovered during so many years.

The next case was almost precisely similar,—the woman being unquestionably healthy; numerous children being born, sound during the time when the father was under treatment and before he contracted the disease; syphilitic when he neglected his condition and the diathesis resumed its activity.

The cases are very carefully reported; in one instance the observations of the mother were confirmed by another prominent physician, and altogether the paper forms an interesting and valuable addition to our knowledge of this needlessly obscure subject.

CHYLOUS ASCITES PRODUCED BY PARASITES (HÆMATOZOA) (*The Medical Record*, October 14, 1876).—Dr. F. Winkel reports the case of a woman, thirty-nine years of age, who had lived long in Surinam, and who, one year after her return to Germany, became affected with

ascites, which at first was improved by medical treatment, but later on required paracentesis. About two quarts of a fluid resembling buttermilk were drawn off, in which the microscope revealed the presence of a large number of thread-like, actively moving organisms,  $\frac{1}{125}$  inch in length by  $\frac{1}{2500}$  inch in breadth. They had a rounded head with four or five cilia, and a sharp-pointed tail. The patient improved somewhat after the operation, but died soon after without having been seen again by Dr. Winkel. The urine appeared to be normal. Menstruation was regular, although the patient suffered from a prolapse of the bladder and womb consequent on the ascites. After the paracentesis a tense, painful swelling of the left leg, and especially of the veins, set in, and lasted for a long time.

Winkel points out the similarity between these entozoa and the filaria discovered by Lewis in chyluria, and thinks that in this case the filaria made their way from the intestinal canal into the lymphatic vessels, and thence into the peritoneal sac. They were probably present in the blood also, and perhaps excited the thrombosis of the veins. The patient stated that a similar affection was not unfrequently met with in Surinam.

## MISCELLANY.

THE following decision of the Supreme Judicial Court, rendered October 2, is of interest to the profession. On November 4, 1871, the Mutual Life Insurance Company of New York issued a policy of insurance for \$1000 on the life of Flora A. Hatch. The woman died by reason of a miscarriage produced by an illegal operation performed upon her. The company refused to pay the money, and the case was carried to the Superior Court, whence it went to the Supreme Court, which has just given the following decision:

The voluntary act on the part of the assured, resulting in her death, was of such a character as to preclude the defendants from assuring against the consequences.—*Boston Medical and Surgical Journal*.

A PANIC AMONG SPONGE-DIVERS.—It is reported from Beyrout that the last crop of Turkey sponge was very deficient, and prices of ordinary and common sponges have greatly risen in consequence. The deficiency is attributed to a panic among the divers, caused by the appearance in the neighborhood of Batroun, Mount Lebanon, the chief sponge-fishing locality, of a sea-monster, alleged to have been equal in size to a "small boat." Its actual depredations among the divers appear to have been limited to one man, who it is said was swallowed whole.—*The Druggists' Advertiser*.

ACCORDING to the Report (*Med. Times and Gazette*) of the Court and Board of Examiners of the Royal College of Surgeons, England, for the year 1875-76, the number who have passed and have been rejected from the various medical schools during that period is as follows:

From 31 Schools, Primary Examinations. Total, 700; number passed, 443; number plucked, 257; percentage of rejections, 1 in 2.72.

From 33 Schools, Pass Examinations. Total, 498; number passed, 377; number plucked, 121; percentage of rejections, 1 in 4.11.

From Canadian Schools, Primary Examinations. Percentage of rejections, 1 in 11.50.

From Canadian Schools, Pass Examinations. Percentage of rejections, 1 in 3.27.

DURING the last winter semester the medical students at the German universities were distributed as follows: At Vienna, 830; Würzburg, 548; Leipsic, 428; Dorpat, 353; Munich, 347; Berlin, 263; Greifswald, 218; Grätz, 211; Zürich, 197; Strasburg, 191; Erlangen, 161; Breslau, 160; Tübingen, 157; Bern, 151; Königsberg, 148; Bonn, 123; Göttingen, 123; Marburg, 122; Freiburg, 120; Halle, 112; Heidelberg, 87; Giessen, 84; Basle, 82; Jena, 75; Innsbruck, 69; Kiel, 64; Rostock, 36.—*Boston Med. and Surg. Journ.*

**DOG'S MILK IN RICKETS.**—M. Bernard, in the *Gazette Hebdomadaire*, states that among the women of Montrun, in Dauphiné, it is the custom to continue suckling for two years and a half to three years, with the idea of preventing another pregnancy; and if the child dies, the mother either adopts another, or takes a puppy into her family to carry on the process. All these puppies suffer from rickets, which resembles exactly the rickets of children, except that the deformity is never afterwards remedied. But the dogs always recovered under the influence of their own mother's milk. Induced by these facts, M. Bernard tried the dog's-milk cure on a rickety female child twenty-six months old. After two to three months of this treatment the swelling of the epiphyses and the bending of the bones had diminished, the muscles were stronger, and the child could stand and walk a little. At the end of about fourteen weeks the health of the patient was extremely good, the only remains of the deformity being a slight curve of the femur and sternum. In six other cases this treatment has also been successful; and M. Bernard recommends its general adoption in the treatment of such cases.—*The Doctor*.

**VAGINAL POULTICES.**—At a late meeting of the Société de Thérapeutique, Paris, M. Bucquoy related that while an *interne* of Louis he had seen true cataplasms applied to the vagina. They were made thin and rolled around a small stick, which, having served as a means of introducing them, was withdrawn. This practice, which was an excellent one, seems to have entirely fallen into neglect, M. Four-

nier, of the Lourcine, being the only person who now employs vaginal cataplasms. M. Fournier makes use of voluminous cataplasms which quite distend the vagina; and he states that he was first induced to resort to this practice by having observed the effects which had several times resulted from his pupils having forgotten to remove large wadding plugs that had been introduced. In each instance these, far from having acted prejudicially, had proved of service in treating vaginitis.—*The Medical Press and Circular*.

**THE "GENEVA CROSS" IN TURKEY.**—The "red cross" of the Geneva Convention is not appreciated among the Bashi Bazouks. Dr. Lenk, an Austrian surgeon, was captured on one of the battle-fields and brought before Assef Pacha. The latter, mistaking the red cross which the doctor hastened to display as a bold insult to the crescent, cut him down with his scimitar. Several other surgeons met the same fate, through a like misapprehension.

## OFFICIAL LIST

### OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM OCTOBER 8, 1876, TO OCTOBER 21, 1876, INCLUSIVE.

RANDOLPH, J. F., SURGEON.—Granted leave of absence for four months. S. O. 208, A. G. O., October 6, 1876.

McKEE, J. C., SURGEON.—Granted leave of absence for one month and twenty days, with permission to go beyond limits of this Division. S. O. 138, Division of the Pacific and Department of California, October 2, 1876.

HARTSUFF, A., SURGEON.—Leave of absence extended for one month. S. O. 110, Military Division of the Missouri, October 6, 1876.

WOODHULL, A. A., ASSISTANT-SURGEON.—Promoted Surgeon with rank of Major, to date from October 1, 1876, vice Milhau, resigned. G. O. 103, A. G. O., October 13, 1876.

KOERPER, E. A., ASSISTANT-SURGEON.—Assigned to duty at Camp Sheridan, Nebraska. S. O. 137, Department of the Platte, October 6, 1876.

WILSON, WM. J., ASSISTANT-SURGEON.—Leave of absence extended four months, on surgeon's certificate of disability. S. O. 211, A. G. O., October 10, 1876.

AINSWORTH, F. C., ASSISTANT-SURGEON.—Assigned temporarily at Fort Vancouver, W. T. S. O. 134, Department of the Columbia, October 9, 1876.

COMEGYS, E. T., ASSISTANT-SURGEON.—To proceed to Washington, D. C., in charge of an insane soldier, and upon completion of this duty avail himself of his leave of absence. S. O. 187, Department of Texas, October 9, 1876.

REED, W., ASSISTANT-SURGEON.—Granted leave of absence for one month, with permission to apply for an extension of fifteen days. S. O. 119, Department of Arizona, September 27, 1876.

CRAMPTON, L. W., ASSISTANT-SURGEON.—Granted leave of absence for one month, with permission to apply for an extension of one month. S. O. 196, Department of the Gulf, October 13, 1876.

WOOD, M. W., ASSISTANT-SURGEON.—Assigned to duty at Camp Robinson, Nebraska. S. O. 137, c. s., Department of the Platte.

APPEL, D. M., ASSISTANT-SURGEON.—Assigned to duty at Fort Stanton, New Mexico. S. O. 206, Department of the Missouri, October 4, 1876.

BURTON, H. G., ASSISTANT-SURGEON.—Assigned to duty at Camp Bowie, A. T. S. O. 122, Department of Arizona, October 4, 1876.